gaged in them, in which the writer does not speak as one who feels that he has no responsibility. The qualifications of Mr. Chadwick and the commissioners may be all that can be desired by those who appointed them, their power no one doubts, but to talk of their responsibility!—they have none, and act under the full conviction of the fact, trampling upon public opinion, the claims of poverty, and the very principles of morality. Whoever may be appointed to carry out the system of drainage and sewerage which must be shortly adopted in this country, they ought to be qualified for their work, have sufficient power to enforce the law, and be made responsible for the performance of their duty, but it is not decent for a poor-law commissioner to make the remark.

"'But engineers, or properly qualified officers, having the science of civil engineering,' says Mr. Chadwick, 'could not be procured for every separate purpose in every part of the country, as is generally assumed in Acts of Parliament for effecting particular objects.

"'From a consideration of the science and skill now obtained from these two corps (the Royal Engineers and the Sappers and Miners) for general service, some conception may be formed of the science and skill that might be obtained in appointments for local service, by pre-appointed securities for the possession of the like qualifications, but which are now thrown away in separate appointments at an enormous expense, where qualifications are entirely neglected.

"'The officers of the Engineer corps have the execution and care of structural works, docks and dockyards, fortifications, military roads and barracks, in addition to the ordinary military duties. One captain of engineers fills the office of hydraulic engineer to the Admiralty, and to his superintendence is intrusted the construction and repairs of all the docks, buildings, and other public works.

"'The officers of the Engineers have been distinguished for their services on some of the most important civil commissions. As collateral services which they have rendered to the public, may be mentioned the trigonometrical survey of Ireland, and that now in progress for England, under the Board of Ordnance, and also the geological survey. The levelling, however, and the whole of the detail of the trigonometrical survey in England is taken by the privates, corporals, and serjeants of the corps of sappers and miners, who have been instructed in geometry, drawing, and mensuration at the school at Chatham. The triangulation for the detail of this work is executed by the engineer officers, under the direction of Colonel Colby. The great majority of the surveys obtained under the Parochial Survey and Valuation Act from private surveyors have been inferior to the surveys executed under superintendence by the privates and non-commissioned officers of the sappers and miners, serving at a pay of 1s. 2d. to 3s. per diem. Out of 1,700 first-class maps received under the Parochial Assessment and Tithe Acts, not more than one-half displayed qualifications for the execution of public surveys without superintendence. Among the most satisfactory maps of the first class of parochial surveys were those by a retired serjeant of sappers and miners. The commissioners for the colonization of South Australia found it difficult to proceed satisfactorily with persons of the ordinary qualifications of surveyors or civil engineers for that country, and deemed it requisite to obtain the services of an engineer officer, with a suitable number of trained men, sappers and miners, under his command.'

"It is difficult to keep within those bounds of expression which should regulate even the controversy of men of education, when one has to deal with a person who is so ignorant of the subject upon which he writes and dictates, as to lay himself open to the censures we must pass upon this part of Mr. Chadwick's report. This gentleman has so contrived to distort and misrepresent facts in the statements he has made in the very remarkable paragraphs we have quoted, that it is difficult to attack him upon a principle. It is not, however, our intention to allow him an escape under a subterfuge, and we will therefore consider his first data, if such his assertions can be called. There is an unintelligible jumble of statements in the paragraphs we have quoted, evidently intended to exalt the military surveyor or engineer, and to lower the civil, in the estimation of the government and the country. The facts have no connection with each other, but 'the privates, corporals, and serjeants of the corps of engineers, and of the sappers and miners,' are placed in advantageous contrast with, and preferred to, the engineers and surveyors in private practice. The reporter has managed to express as many unfair and false statements in four paragraphs, as were ever written in the same space, from the days of the romancers to those which immediately preceded the establishment of a poor law commission. But the gist of the whole is, that the trigonometrical surveys by military men are better done than the plans by private surveyors under the Parochial Survey and Valuation Act. Can any thing be more unfair than such a comparison? In the trigonometrical survey, which the government ought, for reasons to be presently stated, to have committed to the hands of civilians, and not to the military, time was a matter of no importance; the pay was continued, and there was no inducement to haste; the means of existence were secured, and there was no possibility of loss. But the private surveyor had to tender at so low a price, that no man who could find any thing else to do would even compete for the employment. Not one out of fifty who did their work in a professional and accurate manner received the amount of their expenditure, and for this cause the work was frequently left to incapable persons, who assumed the name of surveyors for the occasion, and began to read a treatise on land-surveying, when their tenders were accepted. And yet, upon this evidence, Mr. Chadwick presumes to throw disgrace upon a profession, and to prefer the privates, corporals, and serjeants of the engineers, and the sappers and miners, to the surveyors in private practice. The only wonder is, that he did not avail himself of the surveys made for the Reform Bill, which would probably have been still more suitable for comparison, if it had been equally expedient to have quoted them. It is well known to the profession, that on that occasion many persons were selected as surveyors who did not even know that such an instrument as the theodolite was in existence. Many were distressed impoverished artists, who trusted more to the accuracy of their eye in sketching than to any qualifications they possessed as surveyors. There were some persons, to our own knowledge, employed at that time who had never seen a land-surveyor's chain, and we know one gentleman, who has since been intrusted with large public engineering works, who, when he had been himself rejected from want of interest, taught, for the sake of a few pounds, several applicants who had been more successful than himself, the first principles of surveying, and the use of instruments. The fact is, that the profession is impaired in the first place by the employment of uneducated and incompetent persons, instead of those who, by study and practice, have qualified themselves for their business, and the profession is then made responsible for all the blunders committed by those who, though they have assumed the name, and stolen the employment, have been destitute of the qualification.

"It is not to be doubted that there are quacks in all professions, men who are sheltered by a name, and gain by impudence what they are conscious is not due to them from experience. Such may be found even among the royal engineers and the sappers and miners, who, instructed, and at the same time supported, by the country, ought to have no other care than that of acquiring a superior knowledge of their professions. Architecture, engineering, and surveying are more exposed to the invasion of quackery than any other liberal professions, because no test of knowledge is required previous to profession. We are not advocates for any such exclusive system as that thought necessary for the protection of lawyers, surgeons, and apothecaries; we are not anxious that a certain term of apprenticeship and certificates from certain professors should be indispensable, though we admit they are desirable; for the knowledge of the arts and the sciences on which these professions depend is frequently acquired by men from genius and persevering study in private spheres, who would be ornaments to the professions, and ought to be admitted. Some authorized body, however, for the examination of candidates, is necessary, and would prevent such unmerited imputations as Mr. Chadwick has thought proper to throw upon the surveyors as a class. Whatever incompetence may be exhibited by a person who calls himself a surveyor, whether of roads, pavements, sewers, land, houses, or any thing else, is seized upon by the Poor Law Commissioners' secretary, as an evidence of the ignorance of the profession. Apply the same test to any other body of professional men, that, for instance, to which Mr. Chadwick himself belongs, and if the lawyers—counsel, attorneys, and solicitors—are not found much more incapable than the surveyors, we will confess that we have formed a very erroneous opinion of their qualifications. Why is the client daily put to the expense of opinions from pleaders, in such simple cases as that of suing for debt, if the solicitors of the day are competent practitioners of the law? And as to the costs of surveying, in comparison with those of the law, we challenge Mr. Chadwick to the examination.

"The question of expense incurred by the employment of surveyors is put by Mr. Chadwick in his usual unfair and inaccurate manner. After drawing a comparison between the military engineers and the civilians employed in the survey of land, he commences his comparison of the relative expenses of the two classes, by stating the presumed emolument received by surveyors of houses under the building acts, and the cost of 'a whole board of superior officers at the rate of pay to the officers of the corps of engineers.' Taking, as an example, the town of Leeds, he assumes that the average rate of increase of houses is 855 per annum, and of families, 940, 'which is two new houses and three-tenths per diem, which, if they were only fourth-rate houses, would be required to pay in fees 4*l.* 12*s.* per diem for two or three hours' service, at the ordinary rate of payment to private surveyors:' this statement we entirely deny, but will take another opportunity of disproving it. For this sum, says Mr. Chadwick, a board might be formed of one colonel, one lieutenant-colonel, two captains, two first-lieutenants, two second-lieutenants; or of one captain, two first-lieutenants, three second-lieutenants, one colour-serjeant, three serjeants, six corporals, twenty-two privates. From such a statement as this, any confiding reader would conclude that either of these military boards could be supported at an expense to the country of 4*l.* 12*s.* per day; but the slightest reflection will detect the error of the calculation. This is the amount of their pocket-money, the country providing them with bed and board. This is but one item in the calculation of expense; to it must be added the cost of erecting and maintaining barracks, of clothing, supporting, and educating the men, as well as of supplying them with the necessary instruments; all the time that has been lost in their education, during which they have been equally expensive, and could make no return of services, and also the number of those who, after all the expense, are never brought into any service by which the country is benefited one penny. If Mr. Chadwick will take these additional items into his consideration, and many others with which we will supply him when he feels inclined to correct his estimate, he will come to a very different conclusion.

"The fact is, that every civilian who enters practice as a surveyor has qualified himself for his duties, or is supposed to have done so, and is only paid for the knowledge and skill which he does or ought to supply. But it is not so with the military surveyor or engineer. For his support and education the country has paid, perhaps, many years before he is fitted for the execution of the duties he is required to perform, and not for his only, but many others, in fact, the whole body of men to whom he belongs, some of whom die, some are incapable of learning, and the greater number of those who remain after these deductions have no employment, or at least none which brings any profit to those by whom they are supported.

"But these remarks suggest another inquiry: For what purpose are the two military bodies, the Royal Engineers, and the Sappers and Miners, who are so highly extolled by Mr. Chadwick, supported by the country? It has been supposed that they were necessary for military services, which is the only pretence for retaining a standing army. If it be now found that this supposition is erroneous, why is the country any longer called to defray the heavy expenses incurred by their support? If

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